

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. Contents lists available at ScienceDirect



Sustainable Production and Consumption

journal homepage: www.elsevier.com/locate/spc



Review article Responsible consumer and lifestyle: Sustainability insights

Adrian Lubowiecki-Vikuk^{a,*}, Anna Dąbrowska^a, Aleksandra Machnik^b

^a Department of Consumer Behaviour Research, Institute of Management, SGH Warsaw School of Economics, Al. Niepodległości 162, 02-554 Warsaw, Poland ^b The Angelus Silesius University of Applied Sciences in Wałbrzych, Zamkowa 4, 58-300 Wałbrzych, Poland

ARTICLE INFO

Article history: Received 16 May 2020 Revised 18 August 2020 Accepted 21 August 2020 Available online 22 August 2020

Editor: Prof. Adisa Azapagic

Keywords: Sustainable development Sustainable living Sustainable lifestyle Consumers social responsibilities Consumer behaviour

ABSTRACT

Environmental changes resulting from human activity and the negative impact of civilisational megatrends are being noticed and criticised increasingly often, and their consequences are becoming extremely severe. If people do not change their habits, changes in our ecosystems will become irreversible and it will be impossible to live in such environment. Thus, the aim of the paper is to review the lifestyles of responsible consumers against the background of the sustainable development paradigm. To engage in the debate as to how a sustainable lifestyle can be operationalized, we conducted a traditional, narrative literature review. Apart from revising the theoretical framework of a sustainable lifestyle, we describe selected lifestyles (such as lifestyle of health and sustainability, wellness, *hygge, lagom*, slow living, smart living, low-carbon lifestyles) and consumer behaviour patterns (fair trade, values and lifestyle segmentation). Each of these lifestyles to a broader or narrower extent to sustainable development, but none of the lifestyles is universal. Conscious and responsible consumer behaviour requires a long-term process and to a large extent depends on individual, political and marketing factors. Finally, we made an evaluation of the research used, pointing out challenges to be implemented, which will contribute to the development, enhancement and prominence of a sustainable lifestyle.

© 2020 Institution of Chemical Engineers. Published by Elsevier B.V. All rights reserved.

1. Introduction

One of the main concerns among politicians and scientists in contemporary society is the changes human civilisation is making to the Earth System, which is perceived as a complicated and delicate entity in unstable equilibrium. While many people are aware of and anxious about global warming (Bouman et al., 2020), not so many possess the knowledge that human activity is much more powerful now and its effects can be significantly more dangerous than we can imagine. Since the beginning of the 21st century, scientists from different disciplines have started to propose specialized names for the last centuries of human civilisation, underlining our negative impacts, which has in turn led to a deep and wide-ranging discussion, e.g. Malm (2016) and Moore (2017) invented a term Capitalocene, while Haraway (2015) introduced such interesting terms as Plantatiocene or even Chthulhucene. However, the term that is definitely most widely known is Anthropocene, introduced by Crutzen and Stoermer (2000). This concept maintains that humans have gradually become a geological agent, profoundly shaping the Earth in stronger ways than natural forces, and these

E-mail addresses: alubow@sgh.waw.pl (A. Lubowiecki-Vikuk), adabro3@sgh.waw.pl (A. Dąbrowska), amachnik@pwsz.com.pl (A. Machnik). tory but for both the Earth System and societal decisions. According to this approach, the crucial challenge that humanity faces is to create a "Stabilized Earth" pathway that steers the Earth System away from its current climatic disaster trajectory. This solution is not likely to occur in the Earth System's stability landscape without human stewardship to create and maintain it. Consequently, this requires purposeful and sustained action to become an integral, adaptive part of this dynamic system, providing at the same time such feedback which allows it to be kept on a safe and stabilized Earth trajectory (Steffen et al., 2018). Subsequently, a theory of planet boundary has been elaborated (Rockström et al., 2009). Based on this assumption, Robèrt et al. (2013) propose a planet boundary approach to dealing with Earth sustainability problems, which, in their opinion, could not be solved using the traditional sustainable development, understood in accordance with the first definition as such development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Our common future, 1987). Applying basic principles for sustainability with the inclusion of a planning mechanism, they create a Framework for Strategic Sustainable Development, which they claim to be the result of 25 years of research among scientists and practitioners (Broman and Robert, 2017). The application of such framework addresses fundamental challenges within the planet boundary approach and encourages the

ways have important implications not only for the Earth's trajec-

https://doi.org/10.1016/j.spc.2020.08.007

2352-5509/© 2020 Institution of Chemical Engineers. Published by Elsevier B.V. All rights reserved.

^{*} Corresponding author.

transition to a sustainable society, seen as a complex effort and requiring large coordinated collaboration across disciplines and sectors. Fesmire (2010) notes that the great contemporary task is to help each other to comprehend the relationships between the human being and the whole Earth System, to learn how to perceptively negotiate the compound system in which these associations are integral, from economic to ecological systems, in both our private choices and public policies. Although this concern has been with human society for a long time, it has increased in importance with the observed changes, expressed in such initiatives as Club of Rome founded in 1968 and its famous Limits to Growth published in 1972, as well as the U Thant Report "The problems of human environment" (1969), which was delivered at the United Nations. Papanek's manifesto: "people buy things they don't need, with money they don't have, in order to impress others who don't care" has been valid for nearly five decades now (Papanek, 1972, p. 14). Today, more than ever, we are facing an urgent need for interventions in post-modern lifestyles and consumer behaviour patterns within the modern society, appealing for a co-responsible, balanced and smart way of life.

The main role in the market is played by the consumer, relatively autonomous in their own market-related decisions and choices (McMeeking and Southerton, 2012), which presents a constant challenge to many enterprises (Tjiptono, 2018). Satisfaction of certain consumer needs is no longer a goal in itself, as it used to be in the past. In recent years, enterprises have started to "proactively offer social benefits or public service, and voluntarily minimize practices that harm society, regardless of any legal requirements" (Vitell, 2015, p. 767). Such actions are regarded as Corporate Social Responsibility (CSR). Any CSR initiatives should be implemented with the approval and commitment of consumers (Arli and Tjiptono, 2018), using a three-dimensional approach: social, environmental and economic, understood, in accordance with the first definition, as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Our common future, 1987). At the same time, the approval of consumers translates into e.g. their loyalty towards the company/companies, and enhanced purchase intentions (Marin et al., 2009; Green et al., 2018). In a broader sense, these are behaviours known in the subject literature as Consumer Social Responsibility (CnSR). CnSR is "the application of instrumental, relational, and moral logic by individual, group, corporate and institutional agents seeking to influence a broad range of consumeroriented responsibilities" (Caruana and Chatzidakis, 2014, p. 578). This sophisticated approach indicates that consumer responsibility may be considered from the perspective of responsibilities towards society (Öberseder et al., 2014) and toward consumers themselves (Buerke et al., 2017) to the extent that enterprises regard them as responsible players. Research has shown that when assessing the dimensions of social responsibility (i.e. societal, supplier, environmental, shareholder, community, employee, customer), consumers assigned differing levels of importance to them (Arli and Tjiptono, 2018; Tjiptono, 2018). A situation like this, which stems from the volatility of consumer attitudes and behaviour, is not easy for businesses (Jones et al., 2017). Thus, an individual, with their behaviours towards themselves, including health, wellbeing, sense of happiness, comfort and safety, is as important as the entire society (Marchand and Walker, 2008; Escobar-Tello, 2016; Dłużewska, 2019). This issue is complex, too, as the very theories of well-being can be based on hedonic and eudaimonic ethical approaches (Lamb and Steinberger, 2017; Kumano, 2018). The former pertains to subjective experiencing of happiness, whereas the latter is objective and relates to the quality of life which aims to avoid pain and suffering. Thus, the behaviour of consumers and their responsibility for themselves and others - manifested as lifestyle components - need to be considered in a similar way, taking sustainable development into account. This seemingly peculiar approach shows that we need to look at consumers in a broader context, and their lifestyles may be our lenses. To create a clear and efficient framework, we propose that a responsible consumer is the one who has specific consumer competences defined as "the theoretical knowledge and practical skill, distinguishing a given person with easiness of an efficient, effective, responding to qualitative expectations, fulfilment of needs of lower and higher rank while maintaining responsibility for the choices being made" (Kiełczewski et al., 2017, p. 107). Such definition can be traced back to many earlier ones, which have evolved over the years (Anderson and Cunningham, 1972; Antil, 1984). There are also numerous similar terms and definitions, e.g. green consumer, proposed by Elkington and Hailes (1988), or environmental conscious consumer (Fraj and Martinez, 2006). There is a difference between a "simply" green consumer and sustainable consumer, who should be much more aware of his role in the market (Akenji, 2014).

According to Aydın and Ünal (2015), consumer lifestyle has an effect not only on information about the environment or attitudes towards the environment but also on responsible consumption. Consumers can play an important role by adopting such lifestyles, when aiming for adequacy, voluntary simplicity, sustainable consumption or other ways could become a part of the "green economy" (Binder and Blankenberg, 2017). However, consumer behaviours in most social environments, e.g. Polish consumers (from an EU country, highly developed due to the Human Development Index), still do not reflect the concept of sustainable consumption (Dąbrowska and Janoś-Kresło, 2018). This may stem not only from egoistic decisions (Irlenbusch and Saxler, 2019), or economic barriers, but also from the lack of knowledge. Monitoring the lifestyles of communities, taking into account relevant factors of sustainable development (Spaargaren and Van Vliet, 2000; Devuyst and Van Volsem, 2001, Akenji and Chen, 2016; George-Ufot et al., 2017), may help make international comparisons, and better understand lifestyle trends. Therefore, there is a need for a critical review of lifestyles and consumer behaviour patterns in the context of sustainable development, as well as in the relationship between human beings and other elements of the Earth System. Consequently, the aim of the paper is to review the lifestyles of responsible consumers against the background of the sustainable development paradigm. To achieve this aim, it was necessary to answer the following research questions:

- RQ1: In light of sustainable consumption, what lifestyles of modern society can be considered responsible and what are their characteristics?
- RQ2: To what extent is sustainable development rooted in the lifestyle of responsible consumers?

1.1. Lifestyle and sustainable development: the concept of sustainable lifestyle

Lifestyle, most commonly understood as "the distinctive pattern of personal and social behaviour characteristic of an individual or a group" (Veal, 1993, p. 247), has become the subject of never-ending discussions among scientists from different disciplines, representatives of the business environment, politicians and in the media. Naturally, these debates often centre on different dimensions and contexts, as the behaviours discussed involve changeable elements, i.e. a whole range of relations between an individual and the community, consumer behaviours, work and leisure, including work life balance, and values and civic-religious activity (Siciński, 2002; Agnew et al., 2020, p. 7-8). From the perspective of consumers lifestyle should be considered in the context of their private and professional life, interests, values and beliefs (Vyncke, 2002). According to Jensen (2007), the extensive

definition of lifestyle should be analysed on four different levels: (1) global, (2) structural or national, (3) positional or sub-cultural or (4) individual. Only then will it be possible to capture a given lifestyle from the perspective of e.g. consumer behaviour. In the example above, it is sufficient to investigate only two levels: positional or sub-cultural, and individual. In the first case, lifestyle is a routine, regulated manifestation of sub-cultures affected by family (social class), friends (status groups, sex, generation) and different types of movements and networks. The other case, on the other hand, pertains both to the manifestation or expression of identity, where consumption is a way to maintain a given lifestyle; importantly, consumption in itself is not a lifestyle, and to a set of habits that serve the same primary goal; it is regulated by (social) feedback and access to artefacts (Jensen, 2007). However, simple analyses pertaining to socio-demographic characteristics of consumers are not enough to determine various lifestyle dimensions and thus additionally require enquiry into values, motives, personality traits, behaviours, habits and identification of socio-cultural relations (Furman et al., 2020). Also, it needs to be underlined that any classification of lifestyle definitions cannot be perfect in the first place, due to enormous differences that exist at the social level (Jensen, 2007), which is clearly visible between e.g. Africans and Europeans.

The concept of lifestyle and its components are used in an increasing number of research projects on the 17 individual or interrelated sustainable development goals set by the United Nations, especially goal 3: "Ensure healthy lives and promote wellbeing for all at all ages" and goal 12: "Ensure sustainable consumption and production patterns" (Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, 2019). In the context of increasing social, economic and environmental imbalance, researches underline the importance of sustainable living, which denotes a lifestyle that strictly complies with all principles of sustainable development. Individually or in co-existence with others, a man consciously aims towards decreasing his/her ecological footprint (including carbon footprint) by choosing suitable means of transportation, economic energy use (lyer, 1999; Carrigan et al., 2011, Schanes et al., 2016) and/or balanced diet combined with physical activity (Martinelli and Cavalli, 2019; Agnew et al., 2020).

Sustainable lifestyle is in line with this concept (Christiansen and Matuska, 2006). It is also called a "responsible lifestyle" (Gierszewska and Seretny, 2019; Agnew et al., 2020), whose unambiguous definition is not easy to provide (Evans and Abrahamse, 2009; Barr et al., 2011), and the very attempt to do so may limit the research design and the process of inference. Thus, it requires a more optimum approach (Hedlundde Witt, 2012). Sustainable lifestyle pertains to continued, altruistic and frugal behaviours of an individual (Corral-Verdugo et al., 2010), who maintains harmony with the society, economy and environment, which is reflected by a number of environmental (Ponikowska, 2016; CDC, 2018) and health-related practices (Marjanen et al., 2016; Swiatowy and Szalonka, 2018; Machnik and Lubowiecki-Vikuk, 2020), in order to be "living well within earth's limits" (O'Neill et al., 2018; Vita et al., 2019). Researchers believe that such practices encompass a wide range of activities, including energy and water conservation, waste recycling, "green" consumption and travel and tourism behaviours (Barr and Gilg, 2006; Barr et al., 2011; Peneda de Oliveira and Sousa, 2020). Devuyst and Van Volsem (2000, p. 395) define a sustainable lifestyle as "the sum of all habits that together can be identified as a distinct 'way of living' of a human being, which guarantees a basic quality of life that can be maintained indefinitely by a certain population and therefore remains within the carrying capacity of the ecoregion considered". They also remark that it could be problematic for some people to reduce the impacts of human life on the environment and still maintain this basic quality of life.

There is no universal sustainable lifestyle. This is due to different perspectives of people - their personality traits (Barr and Gilg, 2006) and sense of happiness (Escobar-Tello, 2016; Onel et al., 2018) - who identify themselves as living or trying to live in a more sustainable and/or eco-friendly way (Evans and Abrahamse, 2009). Most often, these behaviours (including sustainable consumption: clothing and food, and various related trends and currents: anti-consumption, voluntary simplifiers, collaborative consumption, boycott behaviour) are reflected in the way of running one's household, the use of transportation or managing leisure (e.g. Southerton et al., 2004; Black and Cherrier, 2010; Barr et al., 2011; Verain et al., 2012; Hicks and Kuhndt, 2013; Shirani et al., 2015; Seegebarth et al., 2016; Miller, 2018; Laurett et al., 2019), with a focus on active leisure whose aim is to "develop feelings of connection to the natural world" (Brymer et al., 2009, p. 193) and consciously improve one's wellbeing. Other examples of sustainable lifestyle behaviours in a community include: cooperative purchasing groups, local trading exchanges, shared playing spaces, car-pooling, community agriculture exchanges, elderly community care, urban vegetable gardens, community nurseries, communal washing centres (Akenji and Chen, 2016, p. 27).

When analysing sustainable behaviours, Onel et al. (2018) distinguished three consumer archetypes with distinct sustainable consumption strategies: holistic sustainable consumers, transitional sustainable consumers, and restricted sustainable consumers. Similar segmentation was carried out by Verain et al. (2012), who narrowed it down to sustainable food consumption. These authors distinguished three segments: greens, potential greens, and non-greens. In both cases, variables at all three levels effectively differentiated consumer segments in terms of sustainable development. These results corroborate the in-depth research by Barr and Gilg (2006). Out of four segments: committed environmentalists, mainstream environmentalists, occasional environmentalists, and non-environmentalists, two (committed environmentalists and non-environmentalists) clearly reflected consumers' involvement or its lack in sustainable development. Committed and mainstream environmentalists were highly committed to a range of environmental activities, although the former were keen composters, with the latter rarely doing so (Barr and Gilg, 2006, p. 917). These two segments represented a considerable part of the population, demonstrating readiness to engage in pro-environmental activities and adjust their lifestyles accordingly so that they were more sustainable. According to Moisander (2007), an informed, socially responsible buyer, so called green consumer, is aware of the public importance of their shopping choices, and tries to use these to create changes in the surrounding social environment. Their behaviour is in line with the principles of sustainable and responsible consumption. However, there are still many consumers who, irrespective of their interest in environmental protection and declared high level of environmental awareness, do not choose to buy organic products. This gap between the declared "green" worldview and consumer behaviours is called "green purchasing inconsistency" or "green attitude-behaviour gap" (Joshi and Rahman, 2015).

1.1.1. Factors influencing sustainable lifestyles

Consumers should not be regarded as the only stakeholders who take full responsibility for sustainable or unsustainable consumption. Akejni (2014) has called this attitude "scapegoatism". Apart from customers' attitudes (A), this author identified such key factors as facilitators (F) and infrastructure (I), both on the government and policymakers' side and proposed AFI model. A similar approach is presented by Axon (2017, p. 11), who underlines that

"to become the norm within society, sustainable lifestyles must be enabled and encouraged by the socio-technical systems and institutions that surround us". The aforementioned AFI model not only shows elements of mainstreaming sustainable consumption, but also helps in elaborating a practical frameworks. The main factors of this model were divided into drivers and motivators. From the consumers' perspective, the most important are those connected with their attitudes, including personal need and desires, social status and psychological/personal traits (driving factors), as well as media values, knowledge, awareness, social norms and peers (motivating factors) (Akenji, 2014; Akenji and Chen, 2016). The right attitude refers to a set of positive values that lead to a predisposition to act sustainably. Today it is almost impossible for consumers not to gain any awareness connected with their lifestyle and consumption (Machnik and Królikowska-Tomczak, 2019), because sustainability is also perceived as a value nowadays (Enquist et al., 2007).

In fact, sustainable living is quite difficult due to a number of various factors, not all of them having been identified. It may be a lot easier for those people who e.g. reside in a sustainable ecovillage, which makes it easier for them to lead a sustainable lifestyle due to their experiences and motivation (Miller and Bentley, 2012). Compared to any other lifestyle, a sustainable lifestyle certainly requires a far greater commitment from consumers, especially from senior citizens (Marjanen et al., 2016), people with disabilities (Salkeld, 2016), gender and sexual minorities (Haslop et al., 1998) and people living alone/singles (Lubowiecki-Vikuk and Sousa, 2020). Due to the demographic trend involving an increase in one-person households, singles are responsible for the loss of economies of scale - they use proportionally more products and generate 0.5 t/y more waste than two- or multi-person households, i.e. they buy 38% more food, use 42% more packaging, buy 61% more petrol, and at the same time use more electricity and water (Yu and Liu, 2007; Underwood and Zahran, 2015). As for young consumers, it was observed that these are people who try to change their approach and engage in sustainable behaviours that constitute a new challenge for them (Diddi et al., 2019, Kono and Walker, 2020) - they often share their surpluses, recycle, and participate in pro-environmental events (Adnan et al., 2017). This type of consumer constitutes the current and future investment for responsible entrepreneurs committed to environmental protection.

Sustainable lifestyle determinants and reformative sustainability marketing (Kemper and Ballantine, 2019) should be included in strategies, preferably scenarios (Vita et al., 2019), promoting a sustainable lifestyle and behavioural changes among all inhabitants of a given country/region/city (Thøgersen, 2005; Svensson, 2012; Korpela, 2019). A case in point are the four scenarios: "Singular Super Champions", "Governing the Commons", "Local Loops" and "Empathetic Communities" developed as part of the European Social Platform project (see SPREAD Sustainable Lifestyles 2050, p. 56-57).

It seems that the bottom up approach in particular – in the form of relatively small but meaningful interventions in the lifestyle of local inhabitants – can significantly contribute to the development of solutions in this field (Barr and Gilg, 2006; Podjed, 2017). However, Hobson (2002) clearly underscored that politically dominant approaches mean little to members of the public. This author's research showed that social justice, not sustainable lifestyle, was most important for the participants of the British sustainable lifestyle programme "Action at Home". Appeals for rationalisation not only had limited cultural significance but also isolated individuals from the project of sustainable consumption. Bressan and Pedrini (2019) presented a slightly different point of view with respect to entities in the economic environment, i.e. owners/managers of tourism enterprises. The researchers demonstrated that the values which were important to the representatives of those entities directly affected the management process or sustainable-oriented innovation implementation in their companies. Most importantly, however, entrepreneurs who treated corporate social responsibility and sustainable development as a motivation for a sustainable lifestyle in everyday business activities and relations with stakeholders proved to be more engaged in sustainable-oriented innovation. Thus, it is impossible to disagree with Evans and Abrahamse (2009) who claim that a sustainable lifestyle needs to be analysed in the context of more extensive social and cultural processes. "Structural changes" are necessary to enable "lifestyle choices" that are conducive to sustainable development, but it is also important to go beyond "sustainable development" (however defined) and refer to other programmes and identities in order to motivate the manifestation of pro-ecological behaviour.

Leading a sustainable lifestyle may also present some potentially negative consequences. Miller (2018) observed that a sustainable lifestyle may lead to social isolation of its "followers", who are perceived as "tree-hugging looneys". Seegebarth et al. (2016) demonstrated that a simplified lifestyle and boycotting for the sake of sustainable development are not necessarily associated with consumers' psycho-social welfare. This may stem from socio-cultural and psychological factors, material culture and the level of consumers' actual income, state policy, including consumer policy, and substantive, technical and organisational actions of different entities in the economic environment. Sometimes, the consumer is driven by yet another factor - illusory gain, like soothing one's conscience or satisfying one's egoistic need to come across as an aware and eco-friendly person. This mechanism is called competitive altruism, which makes the consumer willing to pay more for or buy a particular product (in this case a "green" one) to earn the respect or admiration of their neighbours (Mitchell and Ramey, 2011). Such an individual does not have to be genuinely interested in sustainable consumption or change in their lifestyle, but only follows the trend. Binder and Blankenberg (2017) emphasise that such an approach and the lack of authentic willingness to change one's lifestyle result in considerable differences between green self-image (perceived lifestyle) and actual green behaviour (actual lifestyle). Fraj and Martinez (2006) proved that the group of environmentally conscious consumers, namely people who always try to improve themselves and take actions that pose a new challenge for them, and who at the same time are truly involved in actions leading towards a better environment, can also be characterised by their feeling of self-fulfilment.

This shows that there is a difficulty in providing an exact definition of sustainable lifestyle and raises a question of whether such a lifestyle can exist (on its own) in the first place. As observed by Cebula (2016, p. 118), "lifestyles evolve along with changes in the supply of goods and ideas, but at the same time they are anchored in pre-reflective patterns of perceiving and interpreting the world, acquired in the process of socialisation". The subject literature emphasises that a sustainable lifestyle may (significantly) affect the behaviour of an individual towards the environment and other communities, which is indeed possible, but the process is difficult and time consuming (Gierszewska and Seretny, 2019; Machnik and Królikowska-Tomczak, 2019). Meanwhile, consumers definitely more often focus on the idea of social justice rather than directly support the implementation of a sustainable lifestyle. They display responsible behaviours - understood "as sustainability-oriented consumer behaviour that consists of societal responsible consumer behaviour, including environmental, social, and economic aspects, and personal responsible consumer behaviour, including physical, socio-psychological, and financial aspects" (Buerke et al., p. 965) - in their daily activities



Fig. 1. A theoretical framework for a sustainable lifestyle.

(however, more rarely outside the place of their permanent residency). They voluntarily choose simplicity of life and low-level consumption, the so called sustainable/responsible consumption, and thus consciously (or subconsciously) support sustainable development (Seegebarth et al., 2016; Laurett et al., 2019).

On the one hand, all this poses a challenge for responsible management and marketing, involving specific actions that raise awareness and promote a sustainable lifestyle. One of such actions is the necessity to engage the sectors of formal and informal education in the design and implementation of educational projects centred on sustainable development. It is important that such education be provided from early childhood. It should be offered by educational institutions, social and consumer organisations and, most of all, by responsible enterprises (Murphy, 2012; Gierszewska and Seretny, 2019). On the other hand, specialist knowledge may complicate the process of adopting responsible behaviours by consumers, and negatively affect a sustainable lifestyle, especially when the principles of sustainable development are being aggressively introduced. Qualitative research by Longo et al. (2019, p. 759) confirmed that "more knowledge represents a source of dilemma, tension and paralysis". Moreover, it turned out that more knowledge led to "self-inflicted sustainable consumption paradox" in the participants' pursuit of a lifestyle based on sustainable consumption.

It is definitely much easier and more justified to look for interferential principles which are in line with the sustainable development paradigm and which can be implemented within very different lifestyles – these focused on seeking one's life path, or on goalor change-oriented actions (Ponikowska, 2016) – and ways of perceiving life patterns and aspirations. The implementation of principles requiring serious commitment from consumers represents both: life chances to improve their quality of life, and concern for the environment and welfare of future generations.

We can propose a theoretical framework for a sustainable lifestyle (Fig. 1). In a simplified way, although focusing on the determinants of a sustainable lifestyle (Akenji, 2014; Akenji and Chen, 2016), we assume that the responsible consumer will be one who displays patterns and behaviours embedded in the paradigm of sustainable development in everyday life. This requires empirical verification, as the interactions between determinants and lifestyle may interact with different strength in specific communities. The increase in uncertainty may in principle limit or increase consumer awareness of the need to adopt a lifestyle that is more in line with the fundamental pillars of sustainable development.

1.2. Sustainable development in the context of lifestyle components

In light of the sustainable development goals (SDGs): 3 and 12 – which underscore the development of two spheres of human life, i.e. the health sphere and the consumption sphere – there is a need to refer to relevant indices presenting the degree of SDG implementation.

One of the most important documents in this context is a report by Sachs et al. (2019) presenting the SDG Index and dashboards for all UN member states, and a framework for implementing the SDG Transformations. The SGD Index top 10 countries include Western European states (Austria, France, Germany, the Netherlands), Northern European states, i.e. Estonia and Nordic countries (Denmark, Finland, Norway and Sweden) and one country from Central Europe (the Czech Republic). As for SDG3, it was attained first and foremost by Sweden, Norway and Ireland (Sachs et al., 2019), but other European Union member states also achieved a significant progress in its implementation (Eurostat, 2019, p. 11-12). This goal comprised 17 different parameters, including "subjective well-being". As for the latter, Finland and Denmark were among the countries that scored the highest in the years 2016-2018. With regard to SDG12, it was achieved by African countries (e.g. Cabo Verde, Zimbabwe, Tanzania, Cote d'Ivoire) and Asian countries (e.g. Nepal, Myanmar, Laos, Bangladesh, Tajikistan). In Europe, only some of the Central European countries (Albania, Bosnia and Herzegovina, Belarus, Georgia, Moldova, North Macedonia, Serbia) achieved the "challenges remain" status, whereas "major challenges" are still to be tackled by e.g. Denmark, Estonia, Finland, France, Ireland, Norway and Sweden, which are the countries whose overall SDG Index score was high. Despite an increase in social interest in sustainable development and mostly positive consumer attitudes towards this concept, consumers' behaviour patterns do not fully correspond with their approach (Vermeir and Verbeke, 2006). The challenge is to contrast the negative influence of the general consumption patterns with alternative solutions associated with particular lifestyles, so that societies in these countries could experience/implement sustainable consumption.

However, it needs to be emphasised that these indices do not constitute a key element of the argumentation presented, and do not provide any conclusive evidence. They simply form a reference point to the existing reality. Even though the issues addressed in the indices are rather different (but at the same time linked with one another), they are all significant for sustainable development. The differences they present with regard to sustainable lifestyle components may reveal strengths and limitations of analyses focused on lifestyles. It is thus justified to focus on lifestyles preferred by the Scandinavian society, with reference to the behaviour patterns displayed by the inhabitants of developed countries in Europe.

2. Methods

We conducted a traditional narrative review, involving an arbitrary mapping of the existing intellectual output. For this purpose, we used methods of searching for secondary sources comprising the knowledge on lifestyles and consumer behaviours in the context of sustainable development. A traditional literature review has its limitations (Noblit and Hare, 2018). In contrast to the popular systemic literature review, we wanted to depart from analysing only those papers that are published in journals indexed in the Web od Science, and incorporate in our analysis the features of a traditional review which is "useful in many ways" (Briner and Walshe, 2014, p. 417). This type of review substantially contributes to the discussion about multidirectional and interdisciplinary subjects, one of them being sustainable development (Robert et al., 2005; Waas et al., 2010). Lessening the analytical rigour in this case allowed us to capture a broader perspective of the subject analysed, as we performed a review of the literature on the point, with a differing scope, including regional/local, and in languages other than English. We also studied important reports published by public institutions and organisations. Such an approach is desirable in studies on sustainable development (Martinelli and Cavalli, 2019). The literature analysed was identified by searching electronic databases (Google Scholar, also Web of Science) and library resources. A search of articles in electronic databases was carried out using keyword combinations (i.e. 'lifestyle' or 'lifestyles', 'sustainable lifestyle', 'responsible lifestyle', 'sustainable living', 'consumer', 'responsible behaviour' or 'responsible behavior', 'sustainable behaviour' or 'sustainable behavior', 'sustainable consumption'). In the Web of Science database, topic and title field were used. No additional filters were imposed (publication years, categories, document types). The search was conducted in March/April 2020.

The criterion for selecting a given publication for the review was closely related to the problem studied, which we duly verified. The only studies we did not analyse were non-published papers and "grey" literature.

3. Results and Discussion

The consumer behaviour patterns and sustainable lifestyles listed and described in Table 1 clearly indicate that despite their different names, they represent cohesive concepts. They emphasise that consumer behaviours are oriented towards post-materialistic values (RQ1). Some lifestyles (i.e. wellness, hygge) strongly underline concern for the environment, one's health and that of other people, and active leisure. Low-carbon lifestyles, smart living, are also recognized (Howell, 2013; Spaargaren and Mol, 2013; Schanes et al., 2016). Despite the fact that there is little empirical evidence for positive effects of implementation of any given lifestyle, one can notice that a key role is played by (more and more often meatless) goods and organic food products. Azzurra et al. (2019) proved that, i.e. consumers with a high organic consumption intensity showed a more sustainable lifestyle. Responsible consumers, including the "hyperlocal society", purchase fair trade goods and products from local producers, thus helping not only the environment but also other communities. They use social media to share information about inferior-quality, fake products, non-compliant with standards, and dangerous to the user. These behaviours are supported by the activities of enterprises which effectively promote and co-create social value. Positive attitudes towards this type of actions are observed mainly among women (Furman et al., 2020). However, it needs to be noted that fair trade products are considerably more expensive and less available. The opponents of fair trade underline that it leads to e.g. an artificial increase in the supply of these products, and sometimes an uneven playing field in the market.

Post-modern lifestyle and its components, e.g. individual "mobiquity" and self-image congruence, decrease consumers' resilience to smart services and eServices (Chouk and Mani, 2019). Therefore, it is to be expected that new technologies will be consciously used by consumers to pursue stress- and haste-free life, i.e. sustainable life. It seems that the essence of this kind life does not focus solely on an individual and satisfaction of their needs and wishes, but rather on co-existence, sensitivity and reaction to other people's needs, concern for the environment and consistency in implementing actions based on sustainable development.

Given the exceptional sense of happiness among the majority of Scandinavians (Helliwell et al., 2019), it is worth taking a closer look at their lifestyles called *hygge* and *lagom*. Naturally, these are not lifestyles that can easily be implemented in other societies due to e.g. cultural reasons, changes in the hierarchy of needs, or consumption patterns. However, even if being *hygge/lagom* is a shortterm fad, as observed in the European countries, it is worth promoting this concept.

Due to social inequalities it is impossible to expect that any lifestyle would be fully incorporated by other, so much different social environments. We firmly believes that the components of the lifestyles presented could be an inspiration for the citizens of developed and developing countries and become the focus for the social policy in these countries. All lifestyles concern the inhabitants of Europe, some of them are universal in nature, and may already be led by citizens of other continents, e.g. wellness, slow or smart living and low-carbon lifestyles.

The analysis of individual lifestyles yields a conclusion that each of them, to a smaller or greater extent, relates to sustainable development (RQ2). However, we might propose a thesis that none of these lifestyles will become universal. Their popularisation requires specific criteria to be met, including macro- and microeconomic, educational activities, and promotion of sustainable consumption. Actions promoting changes in the existing consumer behaviours toward informed and responsible behaviours are a long-term process, which should involve central- and local-government institutions, politicians shaping the socio-economic life (Spaargaren and Van Vliet, 2000; Spaargaren and Cohen, 2009; Spaargaren and Mol, 2013; Agnew et al., 2020), incentives for people to buy organic products (e.g. e-car subsidies), schools at different levels of the education system, entrepreneurs responsible for offers, corporate culture, and marketing activities (via e.g. marketing campaigns, the latter can promote a lifestyle compliant with the principles of sustainable development or encourage greater consumption, multiplication of possessions, and frequent replacement of one's goods with newer ones), and consumer organisations (Agnew et al., 2020). Finally, the likelihood and pace of the ongoing changes will be determined by consumers themselves, their competences, willingness to change their existing lifestyles, and awareness of the consequences of consumptionism, food waste, and greenhouse gas emissions

There are limitations to the results obtained in this review. First, we have conducted a traditional, narrative literature review. Therefore, the subjective interpretation of the arbitrarily selected content could have affected the results. Second, different researchers have analysed lifestyles or their selected elements in the context of sustainable consumption or, less frequently, in the broader context of sustainable development. In such cases, the papers focused on

Table 1

Characteristics of selected consumer behaviour patterns and sustainable lifestyles.

Consumer		
patterns/Lifestyles	Concept	Author(s)
Fair Trade	Fair Trade is an organised social movement, a trading partnership based on dialogue, transparency and respect, whose strategy is to cooperate with marginalised producers and workers for the benefit of responsible consumers	Kiełczewski (2012), Papaoikonomou (2013), Coelho (2015)
	The purchase of Fair Trade products in accordance with strictly defined standards goes beyond egoistic usability, and thus can make the world more just, providing the society with a dignified standard of living. Ethically responsible consumers understand the principle of sustainable development and use it in their everyday life; they follow a number of practices using their creativity to avoid unnecessary consumption of products and resources, such as implementing their own grey water systems or finding new uses for old products. They participate in buycotting and boycotting.	Dąbrowska et al. (2017)
Values and Lifestyles Segmentation (VALS/VALS2)	Research methodology used for analysing consumer motivations, based on values and lifestyles; VALS2 distinguishes 8 co-dependent lifestyle types in adults oriented towards principles, status, and actions. Apart from <i>Innovators, Believers, Achievers, Strivers, Experiencers, Survivors</i> , there are also <i>Thinkers</i> - who are open to new ideas and social change, and <i>Makers</i> - who appreciate practical and functional products. Generally, social activists devote a lot of effort into seeking environmentally-friendly products, at the same time representing pro-environmental market approach. It is found that values, aesthetic styles and life visions, either alone or in combination, can lead to very balanced and meaningful lifestyle typologies.	Lawson and Todd (2002), Vyncke (2002), Porter and Kramer (2019)
	shared value (CSV), involving individual and collective consumers in the process. It is to be expected that this new business model will make CSV one of the most powerful forces driving the global economic growth.	
Lifestyle of health and sustainability	Consumers are seen as environmentally aware, socially attuned and with a view of the world that takes into account personal, community and planetary outcomes. Their attitudes, values and experiences from personal life translate into their professional life.	Schober (2010), Korhonen (2012), Schrader and
(LOHAS)	LOHAS consumers, especially women, look for the same values as producers; they prefer natural high-quality products from local producers. When buying different (often luxury) products and services, LOHAS consumers focus first and foremost on their price, and only then on environmental protection, brand and market novelty; they are oriented towards rejuvenation, well-being and connectivity.	Harrach (2013), Choi and Feinberg (2018), Cheng et al. (2019), Pícha and Navrátil (2019)
Wellness	The LOHAS segment is not homogenous; apart from the consumption of food services in restaurants, there are few empirical studies measuring or confirming its relationship to actual behaviours. Wellness lifestyle denotes the achievement and maintenance of well-being associated with high quality of life in	Marjanen et al. (2016),
	all its areas, i.e. physical, spiritual, emotional, intellectual, professional, social and environmental, as well as the ability to lead a productive social and economic life. Wellness is the result of a conscious choice; it is an idea for active, health-oriented individuals at all ages,	Težak Damijanić (2019)
Hygge	The verb hyggja means to think or to be happy with something in Old Norse. Later on, hygge was also used to denote care, protection, safety, calmness and household welfare. Nowadays, the borrowing of this word means to console, to give joy (hyggelight).	Kumano (2018), Kythor (2018), Hortop (2019)
	Danes say that <i>nygge</i> denotes bits, relaxation, cheristing every moment, everything that makes people feel good, e.g. <i>hyggemor</i> , <i>hyggedag</i> , <i>filmhygge</i> . This is the Danish equivalent of the Japanese <i>ikigai</i> , i.e. a lifestyle which reflects the pursuit of happiness. However, it is important to derive joy and peace from a given moment (similarly to the Japanese <i>shiawase</i>). It is possible that outside Denmark <i>hygge</i> is only a fashion amidst the general obsession with everything that is Scandinavian, even though the idea of this lifestyle is: <i>Hygge</i> \neq <i>consumption</i> .	
Lagom	Swedish lifestyle encouraging sustainable life by e.g. promoting recycling. Moderate life in all its aspects should be pleasant and stress-free; therefore, some components of this lifestyle are based on the art of having a break/breaks (<i>fika</i>) during the day.	Helliwell et al. (2019), Hortop (2019)
Slow living	Application of slow functioning principles to various areas of life, e.g. food, city, travel, job, design, education; focus on sustainability, and avoiding the constraints of modern civilisation and negative consequences of globalisation. It is associated with the <i>zero/less waste</i> initiative, which involves minimisation of waste generation, limitation of	Kiełczewski (2012), Ponikowska (2016)
Smart living	consumerism, and increased reuse of items (e.g. by fixing them). Life in accordance with the 5Rs: refuse, reduce, reuse, recycle, rot. Consumers' mobile and innovative lifestyles; consumers use technological products that form an integral part of	Devuyst and Van
	their everyday and 'simplified' lives; they are better informed through the ability to access a significant amount of information on the market, products, offers and businesses, and can access internet-based technologies anywhere and from any device – hence e.g. an increase in the interest in eServices and applications like eHealth, eLeisure, eTourism. The concept of sharing economy is in line with the idea of a smart city and more precisely – of city living. Sharing surpluses shows concern for the environment. Examples: local and sharing service economy has a maximum reduction potential of 18% of the European carbon footprint (CF); sharing and extending lifetimes of clothes and devices could diminish CF by approximately 3%; reducing motorized transport by remote work and active travel could mitigate between 9 and 26% of CF; vegan diets could spare 4% of the land and reduce up to 14% of CF; switching to biomaterials and bioenergy tends to reduce carbon and toxic emissions at the risk of increasing water and land use; passive housing and decentralized renewable energy reduce carbon emissions up to 5 and 14%, respectively.	Volsem (2001), Simons et al. (2014), Dąbrowska and Janoś-Kresło (2018), Chouk and Mani (2019), Vita et al. (2019), Lubowiecki-Vikuk and Sousa (2020)
LOW-CATDON lifestyles	to is hard to provide an unamolguous definition of this type of lifestyle, which stems from the competences, behaviours, and commitment of the consumer. As a rule, it pertains to all activities people undertake in the course of their lives. The idea of this lifestyle relates to smart living, but it is clearly oriented toward reconciling human activity, the natural world, and climate. Reduction of greenhouse gas emissions is a global problem, so promoting this lifestyle should be a priority for politicians and decision-makers in numerous countries. The lifestyle of people living in the Nordic countries, including Scandinavia, is close to this concept.	Spaargaren and Van Vliet (2000), Spaargaren and Cohen (2009), Howell (2013), Spaargaren and Mol (2013), Schanes et al. (2016), Agnew et al. (2020)

selected social groups, e.g. young consumers. This renders a reliable comparison of sustainable lifestyles impossible, especially among communities from different countries. Therefore, the selected examples of sustainable lifestyles are only an illustration of the gaps and challenges mentioned. The main strength of this paper is that it provides a theoretical framework for sustainable lifestyles and critically evaluates these lifestyles.

4. Conclusions

Sustainable lifestyle has been the subject of numerous studies in different scientific fields, which makes our results incomprehensive. Based on a multifaceted approach to lifestyle itself, but also to the goals of a sustainable lifestyle, it is difficult to clearly determine the framework of a sustainable lifestyle. Thus, for the sake of simplification, there are several lifestyles discussed in this paper, which to a smaller or greater extent correspond to the sustainable development trend. The idea of these lifestyles centres upon rational consumption of goods and products, protection of natural resources, the use of renewable sources of energy and lowemission transportation. What certainly stands out is building positive interpersonal relations, including individual and social human needs. Thus, a consumer and their behaviours play a significant role against the background of the identified factors which define a sustainable lifestyle. Consequently, this provides a good basis for understanding who a responsible consumer is. This review showed that consumers may be responsible to a higher or lower degree. It seems that this aspect depends heavily on individual, political and marketing factors. Their impact and the idea of sustainable development can reinforce sustainable lifestyles, which is most clearly visible among Scandinavians.

Sustainable lifestyle is complex and requires multi-dimensional, interdisciplinary and international research that would fill the gaps in the existing body of knowledge and address various questions/issues. This review highlights the need for further studies. First, one would adopt a holistic approach and define sustainable lifestyle and its components, including typology criteria with respect to people leading a sustainable lifestyle. This would allow the definition of profiles of people leading a lifestyle compliant with the concept of sustainable development. Nevertheless, it would be important to identify experiences, hierarchies, values, latent and dual attitudes and behaviours, and barriers in sustainable lifestyle implementation among consumers from developed and developing countries. In our opinion, there is a need to review, intervene and implement lifestyle-based marketing activities of enterprises, with a special focus on CSR, not only in European but also other countries. Finally, what should be specified are effective instruments of state policy for sustainable life of the society and social support in cases of inequality and uncertainty. The COVID-19 pandemic has already affected lifestyles (Echegaray, 2020; Wen et al., 2020), and it is highly likely that they will become more sustainable in the future (Cohen, 2020).

Such extensive studies would have to use validated research tools (e.g. Buerke et al., 2017) and qualitative methods (e.g. Axon, 2017) to eliminate any significant discrepancies in the results and obtain reliable data on interrelated spheres of life of the consumer in the context of sustainable development. Undoubtedly, it is necessary to change the way individuals and societies think into "backcasting" and design efficient sustainable lifestyles and/or reorganise the existing ones, which have partly been or are being redefined in terms of sustainable development. The goal is to responsibly use innovative solutions (which is not sufficient in itself) in everyday life of people and their surroundings, with particular respect toward the natural environment. Thus, quoting Arthus-Bertrand (2020), "We all have our role to play. It is through the accumulation of modest acts carried out at our scale and reproduced here and there that we will succeed in radically changing things".

Compliance of ethical standard statement

For this type of study formal consent is not required. This paper does not contain any studies with human participants or animals performed by any of the authors.

Informed consent

This article does not require informed consent. This is a review article.

Funding

This research study received no specific funding. Salaries of the team members were provided by the employing institutions.

Availability of data and materials

The datasets used and analysed during the current study are available from the corresponding author on reasonable request.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRediT authorship contribution statement

Adrian Lubowiecki-Vikuk: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing - original draft, Writing - review & editing. Anna Dabrowska: Writing - original draft, Writing - review & editing. Aleksandra Machnik: Resources, Validation, Writing original draft, Writing - review & editing.

Acknowledgement

Authors are thankful for insightful comments and helpful suggestions from the editor and reviewers.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.spc.2020.08.007.

References

- Adnan, A., Ahmad, A., Khan, M.N., 2017. Examining the role of consumer lifestyles on ecological behavior among young Indian consumers. Young Consumers 18 (4), 348-377.
- Agnew, M., Pettifor, H., Wilson, C., 2020. Lifestyles in Public Health, Marketing and Pro-Environmental Research. Tyndall Centre for Climate Change Research, Norwich, UK,
- Akenji, L., 2014. Consumer scapegoatism and limits to green consumerism. J. Clean. Prod. 63, 13-23.
- Akenji, L., Chen, H., 2016. A framework for shaping sustainable lifestyles: Determinants and strategies. United Nations Environment Programme, Nairobi.
- Anderson Jr, W.T., Cunningham, W.H., 1972. The socially conscious consumer. J. Marketing 36 (3), 23–31.
- Antil, J.H., 1984. Socially responsible consumers: profile and implications for public policy. J. MacroMarketing 4, 18–39. Arli, D.I., Tjiptono, F., 2018. Consumer ethics, religiosity, and consumer social re-
- sponsibility: are they related? Soc. Responsib. J. 14 (2), 302-320.

Arthus-Bertrand, Y., 2020, https://www.goodplanet.org/en/about-us/ (accessed 27 March 2020).

Axon, S., 2017. "Keeping the ball rolling": Addressing the enablers of, and barriers to, sustainable lifestyles, J. Environ, Psychol, 52, 11-25,

- Aydın, H., Ünal, S., 2015. A study on the effects of the consumer lifestyles on sustainable consumption. Inquiry - Sarajevo J. Soc. Sci. 2, 133-152.
- Azzurra, A., Massimiliano, A., Angela, M., 2019. Measuring sustainable food consumption: A case study on organic food. Sustain. Prod. Consum. 17, 95-107.
- Barr, S., Gilg, A., 2006. Sustainable lifestyles: Framing environmental action in and around the home. Geoforum 37, 906-920.
- Barr, S., Shaw, G., Gilg, A.W., 2011. The policy and practice of 'sustainable lifestyles'. J. Environ. Plann. Man. 54 (10), 1331-1350.
- Binder, M., Blankenberg, A.K., 2017. Green lifestyles and subjective well-being: More about self-image than actual behavior? J. Econ. Behav. Organ. 137, 304-323.
- Black, I.R., Cherrier, H., 2010. Anti-consumption as part of living a sustainable lifestyle: daily practices, contextual motivations and subjective values. J. Consum. Behav. 9 (6), 437-453.
- Bouman, T., Verschoor, M., Albers, C.J., Böhm, G., Fisher, S.D., Poortinga, W., Whitmarsh, L., Steg, L., 2020. When worry about climate change leads to climate action: how values, worry and personal responsibility relate to various climate actions. Global Environ. Chang. 62, 102061.
- Briner, R.B., Walshe, N.D., 2014. From passively received wisdom to actively constructed knowledge: Teaching systematic review skills as a foundation of evidence-based management. Acad. Manag. Learn. Edu. 13 (3), 415-432.
- Bressan, A., Pedrini, M., 2019. Exploring sustainable-oriented innovation within micro and small tourism firms. Tour. Plan. Dev. doi:10.1080/21568316.2019. 1673810.
- Broman, G., Robèrt, K.-H., 2017. A framework for strategic sustainable development. I. Clean. Prod. 140, 17-31.
- Brymer, E., Downey, G., Gray, T., 2009. Extreme sports as a precursor to environmental sustainability. J. Sport Tour. 14 (2-3), 193-204.
- Buerke, A., Straatmann, T., Lin-Hi, N., Müller, K., 2017. Consumer awareness and sustainability-focused value orientation as motivating factors of responsible consumer behavior. Rev. Manag. Sci. 11, 959–991. Carrigan, M., Moraes, C., Leek, S., 2011. Fostering responsible communities: A com-
- munity social marketing approach to sustainable living. J. Bus. Ethics 100, 515-534.
- Caruana, R., Chatzidakis, A., 2014. Consumer social responsibility (CnSR): toward a multi-level, multi-agent conceptualization of the 'other CSR'. J. Bus. Ethics 121 (4), 577–592.
- CDC, 2018. Sustainable Lifestyle. Centers for Disease Control and Prevention. Office of Sustainability https://www.cdc.gov/sustainability/lifestyle/index.htm.
- Cebula, M., 2016. Theoretical and methodological challenges of lifestyle research: from psychographics to poststructuralist analysis. Marketing i Zarzadzanie 3 (44), 117–124.
- Cheng, C., Chang, Y., Tsai, M., Chen, C., Tseng, Y., 2019. An evaluation instrument and strategy implications of service attributes in LOHAS restaurants. Int. J. Contemp. Hosp. M. 31 (1), 194-216.
- Choi, S., Feinberg, R.A., 2018. The LOHAS lifestyle and marketplace behavior. In: Dhiman, S., Marques, J. (Eds.), Handbook of Engaged Sustainability. Springer, Cham doi:10.1007/978-3-319-53121-2_10-1.
- Chouk, I., Mani, Z., 2019. Factors for and against resistance to smart services: role of consumer lifestyle and ecosystem related variables. J. Serv. Mark. 33 (4), 449-462.
- Christiansen, Ch.H., Matuska, K.M., 2006. Lifestyle balance: A review of concepts and research. J. Occup. Sci. 13 (1), 49-61.
- Coelho, S.L., 2015. Fair trade consumers in Portugal: values and lifestyles. Int. J. Consum. Stud. 39 (5), 437-444.
- Cohen, M., 2020. Does the COVID-19 outbreak mark the onset of a sustainable consumption transition? Sustainability: Sci., Practice and Policy 16 (1), 1-3.
- Corral-Verdugo, V., García-Cadena, C.H., Castro, L., Viramontes, I., Limones, R., 2010. Equity and sustainable lifestyles. In: Corral-Verdugo, V., Garcia-Cadena, C.H., Frias-Armenta, M. (Eds.), Psychological Approaches to Sustainability: Current Trends in Theory, Research and Applications. Nova Science Publisher, New York, pp. 185-204.
- Crutzen, P., Stoermer, E., 2000. The "Anthropocene". Int. Geosphere-Biosphere Programme Newslet. 41, 17-18.
- Dąbrowska, A., Janoś-Kresło, M., Radziukiewicz, M., 2017. Polish consumer on the market of fair trade products. J. Manage. Financ. Sci. 10 (27), 9-24.
- Dąbrowska, A., Janoś-Kresło, M., 2018. Collaborative consumption as a manifestation of sustainable consumption. Problemy Zarzadzania-Manage. Issues 16 (3), 132-149.
- Devuyst, D., Van Volsem, S., 2001. Sustainable lifestyle assessment. In: Devuyst, D., Hens, L., de Lannoy, W. (Eds.), How Green is the City?: Sustainability Assessment and the Management of Urban Environments. Columbia University Press, New York, pp. 393-418.
- Diddi, S., Yan, R.-N., Bloodhart, B., Bajtelsmit, V., McShane, K., 2019. Exploring young adult consumers' sustainable clothing consumption intention-behavior gap: A Behavioral Reasoning Theory perspective. Sustain. Prod. Consum. 18, 200-209.
- Dłużewska, A.M., 2019. Well-being versus sustainable development in tourism The host perspective. Sustain. Dev. 27 (3), 512–522.
- Echegaray, F., 2020. Anticipating the post-COVID-19 world: Implications for sustainable lifestyles. SSRN http://dx.doi.org/10.2139/ssrn.3637035.

Elkington, J., Hailes, J., 1988. The Green Consumer Guide. Victor Gollancz, London.

- Enquist, B., Edvardsson, B., Sebathu, S.P., 2007. Values-based service quality for sustainable business, Manag, Serv. Oual, 17 (4), 385-403.
- Escobar-Tello, C., 2016. A design framework to build sustainable societies: Using happiness as leverage. Des. J. 19 (1), 93-115.
- Eurostat, 2019. Sustainable development in the European Union Monitoring report on progress towards the SDGs in an EU context. Publications Office of the European Union, Luxembourg https://ec.europa.eu/eurostat/documents/3217494/ 9940483/KS-02-19-165-EN-N.pdf/1965d8f5-4532-49f9-98ca-5334b0652820.
- Evans, D., Abrahamse, W., 2009. Beyond rhetoric: the possibilities of and for 'sustainable lifestyles'. Environ. Polit. 18 (4), 486–502.
- Fesmire, S., 2010. Ecological imagination. Environ. Ethics 32, 183-203.
- Frai, E., Martinez, E., 2006, Environmental values and lifestyles as determining factors of ecological consumer behaviour: An empirical analysis. J. Consum. Mark. 23 (3), 133-144.
- Furman, A., Maison, D., Sekścińska, K., 2020. Segmentation based on attitudes toward corporate social responsibility in relation to demographical variables and personal values - Quantitative and gualitative study of Polish consumers. Front, Psychol. 11, 450.
- George-Ufot, G., Qu, Y., Orji, I.J., 2017. Sustainable lifestyle factors influencing industries' electric consumption patterns using Fuzzy logic and DEMATEL: The Nigerian perspective. J. Clean. Prod. 162, 624-634.
- Gierszewska, G., Seretny, M., 2019. Sustainable behavior the need of change in consumer and business attitudes and behavior. Found. Manag. 11, 197-208.
- Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, 2019. https://unstats.un.org/ sdgs/indicators/Global%20Indicator%20Framework%20after%202019% 20refinement_Eng.pdf (accessed 17 March 2020).

- Green, T., Allen, A.M., Peloza, J., 2018. The influence of retailer size on consumer responses to social responsibility initiatives. J. Consum. Behav. 17 (4), 439-446. Haraway, D., 2015. Anthropocene, Capitalocene, Plantationocene, Chthulucene: Mak-
- ing Kin. Environmental Humanities 6 (1), 159-165. Haslop, C., Hill, H., Schmidt, R., 1998. The gay lifestyle - spaces for a subculture of
- consumption. Mark. Intell. Plan. 16 (5), 318-326.
- Hedlund-de Witt, A., 2012. Exploring worldviews and their relationships to sustainable lifestyles: Towards a new conceptual and methodological approach. Ecol. Econ. 84, 74-83.
- Helliwell, J., Layard, R., Sachs, J., 2019. World Happiness Report 2019. Sustainable Development Solutions Network, New York.
- Hicks, Ch., Kuhndt, M., 2013. Emergent futures? Signposts to sustainable living in Europe and pathways to scale. In: Fudge, S., Peters, M., Hoffman, S.M., Wehrmeyer, W. (Eds.), The global challenge of encouraging sustainable living: Opportunities, barriers, policy and practice. Edward Elgar, Cheltenham, pp. 85-105.
- Hobson, K., 2002. Competing discourses of sustainable consumption: Does the 'rationalisation of lifestyles' make sense? Environ. Polit. 11 (2), 95-120.
- Hortop, A., 2019. Harnessing the Scandinavian concepts of 'Lagom' and 'Hygge' in creative bliss. Brit. J. Occup. Ther. 82 (8), 24 Supplement.
- Howell, R.A., 2013. It's not (just) "the environment, stupid!" Values, motivations, and routes to engagement of people adopting lower-carbon lifestyles. Global Environ. Chang. 23 (1), 281-290.
- Irlenbusch, B., Saxler, D.J., 2019. The role of social information, market framing, and diffusion of responsibility as determinants of socially responsible behavior. J. Behav, Exp. Econ. 80, 141-161.
- Iyer, G.R., 1999. Business, consumers and sustainable living in an interconnected world: A multilateral ecocentric approach. J. Bus. Ethics 20, 273-288.
- Jensen, M., 2007. Defining lifestyle. Environ. Sci 4 (2), 63-73.
- Jones III, R.J., Reilly, T.M., Cox, M.Z., Cole, B.M., 2017. Gender makes a difference: Investigating consumer purchasing behavior and attitudes toward Corporate Social Responsibility policies. Corp. Soc. Resp. Env. Ma. 24 (2), 133-144.
- Joshi, Y., Rahman, Z., 2015. Factors affecting green purchase behaviour and future research directions. Int. Strateg. Manag. Rev. 3, 128-143.
- Kemper, J.A., Ballantine, P.W., 2019. What do we mean by sustainability marketing? J. Mark. Manage. 35 (3-4), 277-309.
- Kiełczewski, D., 2012. The diversity of lifestyles as a factor of sustainable development. Economics and Environment 3 (43), 73-84.
- Kiełczewski, D., Bylok, F., Dąbrowska, A., Janoś-Kresło, M., Ozimek, I., 2017. Consumers' competences as a stimulant of sustainable consumption. Folia Oeconomica Stetinensia 17 (2), 97-114.
- Kono, S., Walker, G.J., 2020. Theorizing ikigai or life worth living among Japanese university students: A mixed-methods approach. J. Happiness Stud 21 (1), 327-355
- Korhonen, V., 2012. Package value for LOHAS consumer results of a Finnish study. In: 18th IAPRI World Packaging Conference. DEStech Publications, Inc, San Luis Obispo California, pp. 156-163.
- Korpela, M., 2019. Searching for a countercultural life abroad: neo-nomadism, lifestyle mobility or bohemian lifestyle migration? J. Ethn. Migr. Stud., https: //doi.org/10.1080/1369183X.2019.1569505.
- Kumano, M., 2018. On the concept of well-being in Japan: Feeling shiawase as hedonic well-being and feeling ikigai as eudaimonic well-being. Appl. Res. Qual. Life 13, 419-433.
- Kythor, E., 2018. What the hygge? Britain's hype for British hygge. Scandinavica 57 (2), 68-83
- Lamb, W.F., Steinberger, J.K., 2017. Human well-being and climate change mitigation. WIREs Clim. Change 8 (6), e485. https://doi.org/10.1002/wcc.485.

- Laurett, R., do Paço, A.M.F., Mainardes, E.M., 2019. Sustainable consumer lifestyles/sustainable consumption. In: Leal Filho, W., Azul, A., Brandli, L., Özuvar. P., Wall, T. (Eds.), Responsible Consumption and Production, Encyclopedia of the UN Sustainable Development Goals. Springer, Cham https://doi.org/10.1007/ 978-3-319-71062-4_20-1.
- Lawson, R., Todd, S., 2002. Consumer lifestyles: A social stratification perspective. Market. Theory 2 (3), 295–307.
- Longo, C., Shankar, A., Nuttall, P., 2019. 'It's not easy living a sustainable lifestyle': How greater knowledge leads to dilemmas, tensions and paralysis. J. Bus. Ethics 154 759-779
- Lubowiecki-Vikuk, A., Sousa, B.B., 2020. Consumer behaviour of silver singles on the e-tourist market. Problemy Zarzadzania-Management Issues 18 (1), 159-176.
- Machnik, A., Królikowska-Tomczak, A., 2019. Awareness rising of consumers, employees, suppliers, and governments. In: Leal Filho, W., Azul, A., Brandli, L., Özuvar, P., Wall, T. (Eds.), Responsible Consumption and Production, Encyclopedia of the UN Sustainable Development Goals. Springer, Cham https://doi.org/10.1007/ 978-3-319-71062-4 39-1.
- Machnik, A., Lubowiecki-Vikuk, A., 2020. Innovations in medical tourism against the paradigm of sustainable development background. In: Ratten, V., Àlvarez-García, J., de la Cruz del Río-Rama, M. (Eds.), Entrepreneurship, innovation and inequality: Exploring territorial dynamics and development. Routledge, London, pp. 132-160
- Malm, A., 2016. Fossil capital: The rise of steam power and the roots of global warming. Verso, London, New York.
- Marchand, A., Walker, S., 2008. Product development and responsible consumption: Designing alternatives for sustainable lifestyles. J. Clean. Prod. 16 (11), 1163-1169
- Marin, L., Ruiz, S., Rubio, A., 2009. The role of identity salience in the effects of corporate social responsibility on consumer behavior. J. Bus. Ethics 84, 65-78.
- Martinelli, S.S., Cavalli, S.B., 2019. Healthy and sustainable diet: a narrative review of the challenges and perspectives. Cienc. Saude Coletiva 24 (11), 4251–4261.
- Marjanen, H., Kohijoki, A.-M., Saastamoinen, K., 2016. Profiling the ageing wellness consumers in the retailing context. Int. Rev. Retail Distrib. Consum. Res. 26 (5), 477-501.
- McMeekin, A., Southerton, D., 2012. Sustainability transitions and final consumption: Practices and socio-technical systems. Technol. Anal. Strateg. 24 (4), 345-361.
- Miller, E., Bentley, K., 2012. Leading a sustainable lifestyle in a 'non-sustainable world': Reflections from Australian ecovillage and suburban residents. J. Educ. Sustain. Dev. 6 (1), 137-147.
- Miller, E., 2018. 'My hobby is global warming and peak oil': sustainability as serious leisure. World Leis. J. 60 (3), 209-220.
- Mitchell, L.D., Ramey, W.D., 2011. Look how Green am I! An individual-Level Explanation for Greenwashing. Journal of Applied Business and Economics 12 (6), 40-45.
- Moisander, J., 2007. Motivational complexity of green consumerism. Int. J. Consum. Stud. 31 (4), 404-409.
- Moore, J.W., 2017. The capitalocene, part I: On the nature and origins of our ecological crisis. J. Peasant Stud. 44 (3), 594-630.
- Murphy, K., 2012. The social pillar of sustainable development: a literature review and framework for policy analysis. Sustainability: Science, Practice and Policy 8 (1), 15-29.
- Noblit, G.W., Hare, R.D., 2018. Meta-ethnography: Synthesizing qualitative studies. Sage, Newbury Park.
- O'Neill, D.W., Fanning, A.L., Lamb, W.F., Steinberger, J.K., 2018. A good life for all within planetary boundaries. Nat. Sustain. 1, 88-95.
- Onel, N., Mukherjee, A., Kreidler, N.B., Díaz, E.M., Furchheim, P., Gupta, S., Keech, J., Murdock, M.R., Wang, Q., 2018. Tell me your story and I will tell you who you are: Persona perspective in sustainable consumption. Psychol. Market. 35 (10), 752-765.
- Our common future, 1987. WCED. Oxford University Press.
- Öberseder, M., Schlegelmilch, B.B., Murphy, P.E., Gruber, V., 2014. Consumers' perceptions of corporate social responsibility: Scale development and validation. J. Bus. Ethics 124, 101-115.
- Papanek, V., 1972. Design for the Real World: Human Ecology and Social Change. Bantam Books, New York.
- Papaoikonomou, E., 2013. Sustainable lifestyles in an urban context: towards a holistic understanding of ethical consumer behaviours. Empirical evidence from Catalonia. Spain. Int. J. Consum. Stud. 37 (2), 181-188.
- Peneda de Oliveira, C., Sousa, B.M., 2020. Green consumer behavior and its implications on brand marketing strategy. In: Naidoo, V., Verma, R. (Eds.), Green Marketing as a Positive Driver Toward Business Sustainability. IGI Global, Hershey, PA, pp. 69-95.
- Pícha, K., Navrátil, J., 2019. The factors of lifestyle of health and sustainability influ-
- encing pro-environmental buying behavior. J. Clean. Prod. 234, 233–241. jed, D., 2017. Ethnography first! Promoting sustainable lifestyles Podjed, D., locally meaningful solutions. https://www.epicpeople.org/ through ethnography-first-promoting-sustainable-lifestyles/ (accessed 18 March 2020).
- Ponikowska, K., 2016. Sustainable lifestyles theoretical approach. In: Klimczak, J., Ponikowska, K. (Eds.), Style życia w perspektywie zrównoważonego rozwoju [Lifestyles in the Perspective of Sustainable Development]. Wydawnictwo Uniwersytetu Śląskiego, Katowice, pp. 17-26.
- Porter, M.E., Kramer, M.R., 2019. Creating shared value. How to reinvent capitalism -And unleash a wave of innovation and growth. In: Lenssen, G., Smith, N. (Eds.), Managing Sustainable Business. Springer, Dordrecht, pp. 323-346.

- Robert, K.W., Parris, T.M., Leiserowitz, A.A., 2005. What is sustainable development? Goals, indicators, values, and practice. Environment 47 (3), 8-21.
- Robèrt, K.-H., Broman, G., Basile, G., 2013. Analyzing the concept of planetary boundaries from a strategic sustainability perspective: How does humanity avoid tipping the planet? Ecol. Soc. 18 (2), 5.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F.S., Lambin, E., Lenton, T.M., Scheffer, M., Folke, C., Schellnhuber, H., Nykvist, B., De Wit, C.A., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P.K., Costanza, R., Svedin, U., Falkenmark, M., Karlberg, L., Corell, R.W., Fabry, V.J., Hansen, J., Walker, B., Liverman, D., Richardson, K., Crutzen, P., Foley, J., 2009. Planetary boundaries: exploring the safe operating space for humanity. Ecol. Soc. 14 (2), 32
- Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G., 2019. Sustainable Development Report 2019. Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN), New York,
- Salkeld, D.F., 2016. Sustainable lifestyles for all? Disability equality, sustainability and the limitations of current UK Policy. Disabil. Soc 31 (4), 447-464.
- Schanes, K., Giljum, S., Hertwich, E., 2016. Low carbon lifestyles: A framework to structure consumption strategies and options to reduce carbon footprints. J. Clean Prod 139 1033-1043
- Schober, 2010. LOHAS Lifestyle of Health and Sustainability: neueEinblicke in den neo-ökologischen Lifestyle. Schober Information Group Deutschland GmbH, Stuttgart.
- Schrader, U., Harrach, C., 2013. Empowering responsible consumers to be sustainable intrapreneurs. In: Schrader, U., Fricke, V., Doyle, D., Thoresen, V. (Eds.), Enabling responsible living. Springer, Berlin, Heidelberg, pp. 181–192. Seegebarth, B., Peyer, M., Balderjahn, I., Wiedmann, K.-P., 2016. The sustainability
- roots of anticonsumption lifestyles and initial insights regarding their effects on consumers' well-being. J. Consum. Aff. 50 (1), 68-99.
- Shirani, F., Butler, C., Henwood, K., Parkhill, K., Pidgeon, N., 2015. 'I'm not a tree hugger, I'm just like you': changing perceptions of sustainable lifestyles. Environ. Polit. 24 (1), 57-74.
- Siciński, A., 2002. Styl życia, kultura, wybór: szkice [Lifestyle, Culture, Choice: Sketches]. IFiS PAN, Warszawa.
- Simons, L.P.A., Hampe, J.F., Guldemond, N.A., 2014. ICT supported healthy lifestyle interventions: design lessons. Electron. Mark 24, 179-192.
- Southerton, D., Warde, A., Hand, M., 2004. The limited autonomy of the consumer: Implications for sustainable consumption. In: Southerton, D., Chappells, H., Van Vliet, B. (Eds.), Sustainable Consumption: the implications of changing infrastructures of provision. Edward Elgar Publishing, pp. 32-48.
- Spaargaren, G., Van Vliet, B., 2000. Lifestyles, consumption and the environment: The ecological modernisation of domestic consumption. Environ. Polit. 9, 50-76.
- Spaargaren, G., Cohen, M.J., 2009. Greening lifecycles and lifestyles: Sociotechnical innovations in consumption and production as core concerns of ecological modernisation theory. In: Mol, A.P.J., Sonnenfeld, D.A., Spaargaren, G. (Eds.), The Ecological Modernisation Reader. Environmental reform in theory and practice. Routledge, London-New\sYork, pp. 257-274.
- Spaargaren, G., Mol, A.P.J., 2013. Carbon flows, carbon markets, and low-carbon lifestyles: reflecting on the role of markets in climate governance. Environ. Polit. 22 (1), 174–193.
- SPREAD Sustainable Lifestyles 2050, https://www.sustainable-lifestyles.eu/ fileadmin/images/content/D4.1_FourFutureScenarios.pdf (accessed 25 March 2020).
- Steffen, W., Rockström, J., Richardson, K., Lenton, T.M., Folke, C., Liverman, D., Summerhayes, C.P., Barnosky, A.D., Cornell, S.E., Crucifix, M., Donges, J.F., Fetzer, I., Lade, S.J., Scheffer, M., Winkelmann, R., Schellnhuber, R., Schellnhuber, H.J., 2018. Trajectories of the Earth system in the Anthropocene. P. Nat. Acad. Sci. USA 115 (33), 8252-8259.
- Svensson, E., 2012. Achieving sustainable lifestyles? Socio-cultural dispositions, collective action and material culture as problems and possibilities. Local Environ. 17 (3), 369-386.
- Światowy, G., Szalonka, K., 2018. Health behaviors in lifestyles model approach in the context of sustainable development. Marketing i Rynek 4, 539-549.
- Težak Damijanić, A., 2019. Wellness and healthy lifestyle in tourism settings. Tour. Rev. 74 (4), 978-989.
- Thøgersen, J., 2005. How may consumer policy empower consumers for sustainable lifestyles? J. Consum. Policy 28, 143-177.
- Tjiptono, F., 2018. Examining the challenges of responsible consumption in an emerging market. In: Thatcher, A., Yeow, P. (Eds.), Ergonomics and Human Factors for a Sustainable Future. Palgrave Macmillan, Singapore, pp. 299-327.
- U Thant, S., 1969. The problems of human environment. Raport UN. Resolution Bo. 2390.
- Underwood, A., Zahran, S., 2015. The carbon implications of declining household scale economies. Ecol. Econ. 116, 182-190.
- Veal, A.J., 1993. The concept of lifestyle: A review. Leis. Stud. 12 (4), 233-252.
- Verain, M.C.D., Bartels, J., Dagevos, H., Sijtsema, S.J., Onwezen, M.C., Antonides, G., 2012. Segments of sustainable food consumers: a literature review. Int. J. Consum. Stud. 36 (2), 123-132.
- Vermeir, I., Verbeke, W., 2006. Sustainable food consumption: exploring the consumer attitude – behavioral intention gap. J. Agr. Environ. Ethic. 19, 169–194. Vita, G., Lundström, J.R., Hertwich, E.G., Quist, J., Ivanova, D., Stadler, K.,
- Wood, R., 2019. The environmental impact of green consumption and sufficiency lifestyles scenarios in Europe: Connecting local sustainability vi-sions to global consequences. Ecol. Econ. 164, 106322. https://doi.org/10.1016/ j.ecolecon.2019.05.002.

- Vitell, S.J., 2015. A case for consumer social responsibility (CnSR): Including a selected review of consumer ethics/social responsibility research. J. Bus. Ethics 130, 767–774.
- Vyncke, P., 2002. Lifestyle segmentation From attitudes, interests and opinions, to values, aesthetic styles, life visions and media preferences. Eur. J. Commun. 17 (4), 445-463.
- Waas, T., Verbruggen, A., Wright, T., 2010. University research for sustainable development: Definition and characteristics explored. J. Clean. Prod. 18 (7), 629–636.
 Wen, J., Kozak, M., Yang, S., Liu, F., 2020. COVID-19: potential effects on Chinese citizens' lifestyle and travel. Tour. Rev., https://doi.org/10.1108/TR-03-2020-0110.
 Yu, E., Liu, J., 2007. Environmental impacts of divorce. Proc. Natl Acad. Sci. 104 (51), 2007.
- 20629–20634.